Estimations of Magnitude of Nova Aurigæ in 1899–1900, *with the mean results for the years* 1892–1900, *from observations at the Radcliffe Observatory, Oxford.*

(*Communicated by Arthur A. Rambaut, M.A., Sc.D., F.R.S., Radcliffe Observer.*)

The observations of *Nova Aurigæ* given in this paper are in continuation of those published in the *Monthly Notices*, vol. lix. p. 258. Estimations of the magnitude of this star have also appeared in vol. lii. pp. 430, 431 ; vol. liii. pp. 33, 34, 126 ; vol. lv. p. 164 ; vol. lvi. p. 234 ; and vol. lviii. p. 180.

A chart giving the approximate positions of the *Nova* and comparison stars will be found in vol. lii. p. 431. The letters denoting the comparison stars in this paper refer to this chart.

The estimations were made with the Barclay Equatorial of 10 inches aperture.

1899 April 1, $9\frac{1}{2}^{h}$.—*Nova* > $d=e=\xi$. Stars seen with difficulty ; field bright with scattered light ; slight condensation found on object-glass. Powers used, 80 and 100. (C.)

1899 April 10, 10^{h}.—*Nova* slightly brighter than ξ, d, and e by about 0·3 or 0·4 magnitude. Sky suddenly clouded over immediately after this observation. (R.)

1900 October 4, $10\frac{3}{4}^{h}$.—*Nova* fainter than any of the comparison stars of the chart except p, which it excelled in brightness by 0·3 magnitude. *Nova* seemed nebulous, with occasionally a stellar nucleus. Bright moonlight. With power 250 the following estimations of magnitude of *Nova* and comparison stars were made : $a=10{\cdot}5$; $b=11{\cdot}5$; $c=11{\cdot}7$; $\xi=12{\cdot}7$; $d=12{\cdot}7$; $e=13{\cdot}0$; $f=13{\cdot}2$; *Nova*$=13{\cdot}4$; $p=13{\cdot}7$. (R.)

1900 November 17, 10^{h}.—*Nova* seems to be about 0·2 or 0·3 brighter than on October 4. With power 250, the following estimations of magnitude of *Nova* and comparison stars were made : $a=10{\cdot}5$; $b=11{\cdot}5$; $c=11{\cdot}6$; d and $\xi=12{\cdot}6$; $e=13{\cdot}0$; *Nova*$=13{\cdot}2$; $f=13{\cdot}4$; $p=13{\cdot}7$. There is a wide companion to p nearly same magnitude (about 13·9), and this companion appears to be elongated. It is situated between a and p at about $\frac{1}{4}$ the distance from a to p. [Subsequently identified with M of Burnham's chart, *Monthly Notices*, vol. lii. facing p. 436.] (R.)

1900 December 13, 7^{h}.—*Nova* is fainter than any of the comparison stars in chart except f and p. *Nova* estimated as $=f$ and $>p$. (R.)

Adopting for the comparison stars the magnitudes given in vol. lii. p. 431, we have for the magnitude of *Nova Aurigæ*:

		h			
1899					
April	1,	$9\frac{1}{2}$	13·5	Observer	C.
	10,	10	13·3	,,	R.
1900		h			
Oct.	4,	$10\frac{3}{4}$	14·1	,,	R.
Nov.	17,	10	13·9	,,	R.
Dec.	13,	7	13·8	,,	R.

Observers: R. Mr. Robinson.
C. Mr. McClellan.

The mean magnitudes from 1892 to 1900 are:

1892	4·5 to < 14·0	Feb. 3 to March 31
,,	9·5 to 9·8	Sept. 8 to end of year
1893	9·7	
1894	9·7	
1895	9·7	
1896	...	
1897	11·4	
1898	12·0	
1899	13·4	
1900	13·9	

Radcliffe Observatory, Oxford:
1901 *June* 13.

Further Observations of the New Star in Perseus made at the Radcliffe Observatory, Oxford.

(*Communicated by Arthur A. Rambaut, M.A., Sc.D., F.R.S., Radcliffe Observer.*)

This paper contains the results of observations upon the brightness and colour of the new star in *Perseus* made at the Radcliffe Observatory since the date of the last meeting of the Society, and is in continuation of the Notes, on the same subject, already communicated to the Society and published in the *Monthly Notices* for March, April, and May.

With the exception of two observations made by Mr. Robinson on May 12 and 14, all the estimations were made with